Sculpture includes any three-dimensional expressive object. Sculptures can be large, small, or any size in between. They can be educational, functional, or simply decorative. Some sculptures are representative (looks like something real and recognizable) and some are completely abstract (not defined by concrete examples). As with all arts, even highly representative or realistic sculptures are still interpretations of reality, not a direct copy. Some sculptures, such as monuments mounted on pedestals, are made to be seen from all directions and visible from all sides. Other sculptures are in relief, which means that they are on a flat background, such as the sculpted heads of presidents on our coins.
One way to think about making a sculpture is to just think about some basic ways to create a three-dimensional form. Many sculptors rely on a mix of techniques and materials, but we can still categorize broadly these different approaches.

Traditionally, sculptures were made through subtractive or additive methods. Carving is subtractive, because the artist starts with a material and removes from it to create a three-dimensional form. Marble and other stone sculptures, for example, are carved from blocks of material. Whittling and carving in wood, ivory, and other hard materials are also subtractive methods of sculpting. Additive methods use a soft material that can be built up into a solid form, often something like clay. This kind of sculpting can also involve working with more ephemeral (non-durable) materials that will melt or collapse, like sandcastles or ice.

You can also create sculptures through fabrication, by building or manipulating materials to make new shapes. Materials like fiberglass or silicone can be applied to an internal frame, for example, to create large and durable sculptures that have a lot of detail and are also lighter weight. Finally, some sculptors create their work using something more like an assembly method—taking existing objects and forms that they find, and recombining them to be new and surprising.

Many sculptures are unique, or one-of-a-kind, but artists have also developed ways to create durable duplicates of their work with a technique called casting. In this case, an original sculpt is made with a material that is easier to work with, and then a rigid cast is made of the outside shape of that sculpt. Then, using materials like plaster, metal, concrete, or plastic that can be liquefied, poured into the mold, and then removed when solid, multiple copies can be made. Most metal statues, such as monuments that you see mounted outdoors, are created this way. But many things are also manufactured from an original sculpted by an artist, such as plastic toys.

Sculptures in stone and metal are extremely durable, and even pottery and glass, if protected, are long-lasting. When studying ancient cultures, sculptures and sculptural work can be major pieces of evidence we have to understand the people who made them—what they cared about, what their technologies were like, and even sometimes understanding who else they knew, based on the trade in materials.

Sometimes we know a lot about who made sculptural works and why—such as the tombs of ancient Egypt, the figureheads on Viking ships, and the terracotta army of ancient China. In other cases, a lot of mystery still surrounds the reason and methods that ancient people had for creating sculptural works, such as the case with the Easter Island Moai (giant heads), the Nazca Lines in Peru, or Stonehenge and the other standing stones in the British Isles.

Sculptures can communicate with people over extremely long gulfs of space and time. The urge to transform everyday objects through sculptural arts is widespread through human history, and continues in our cultures today. If you are looking for it, you can find many examples of aesthetic three-dimensional embellishments and decorations on objects and structures all around us.
To earn your emblem, you need to make sculptures using at least four different methods.

In this unit, you will try your hand at a few different sculptural methods. It can take years to perfect the techniques needed to make truly accomplished pieces, but this is a chance to transform some everyday objects into three-dimensional forms.

You should document as you go along, and create either a slideshow or a physical exhibition of your work at the end of the unit. Every sculpture or set of sculptures should have a title! Invite others to see what you have made!

**METHOD ONE: SUBTRACTIVE SCULPTURE**

**#1 CARVING WITH SOAP**

Bars of inexpensive solid soap are a good way to try out carving using a material that is inexpensive and relatively soft. Plus, you can go ahead and use them for soap when you are done. Also, a cute soap animal or shape can even make a nice gift!

**#2 CARVING FRUITS AND VEGETABLES**

In Japan (and elsewhere) there are traditions of carved fruit and vegetable garnishes. Try following some of the beginner tutorials as listed below:

- [www.vegetablefruitcarving.com/blog/fruit-carving-for-beginners/](http://www.vegetablefruitcarving.com/blog/fruit-carving-for-beginners/)
- [www.youtube.com/channel/UC-C7YqQCvJ-2EUyH7iOStw](http://www.youtube.com/channel/UC-C7YqQCvJ-2EUyH7iOStw)

Photograph your results before eating them!

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**NOTES**

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METHOD TWO: ADDITIVE SCULPTURE

#3 MAKING SANDCASTLES

If you live near a beach, you probably know how to make a sandcastle. What are your favorite techniques? Read up on tips from the professional and award winning sandcastle builders and see if you can take it up a notch. Can you put together a couple of teams and have a sandcastle competition of your own?


Remember to document your results!

#4 HANDBUILDING WITH CLAY OR PLAY-DOH®

Using natural clay, Sculpey®, or homemade “cold porcelain” or modeling clay (one recipe: [www.clay-it-now.com/besthomemadeclay.html](http://www.clay-it-now.com/besthomemadeclay.html)) you can build small or large sculptural objects and decorations. You can even use this as a time to make small gifts—ornaments, trophies and awards, or jewelry.

When completely dry, you can paint or otherwise decorate your object. You can work in a free-form way, but it might be more successful to come up with a theme or plan ahead of time. Sketch out some ideas before you start your handbuilding experiments!
METHOD THREE: FABRICATION

#5 SHAPING WITH WIRE
This activity is a good way to try your hand at making some representative forms more easily. Using an easily manipulated, thicker floral wire, you can make a kind of a “skeleton” or framework of a figure (human or other, though having a photograph or drawing as a guide can help). Once you have posed this figure, start exploring how to build it up and make it more dimensional by adding additional wires to the frame and by wrapping the outside. A quick image search will give you some ideas, but think about whether you want to pose your figure so it looks like it is moving and ways to make it look like it is solid, even when the wire is clearly visible. Small wood blocks or cardboard can serve as a base for your sculpture!

#6 CREATING WITH PAPER: ORIGAMI AND KIRIGAMI
An inexpensive way to explore the transformation of a flat material into three-dimensional forms is to try your hand at origami, kirigami, and pop-up and dimensional paper arts.

+ www.origami-resource-center.com/

Books on making paper models, pop-ups, and origami can also help get you started. Using patterns and tutorials as a starting point, can you modify them to make your own designs?

#7 MAKING PACKING PEANUT STRUCTURES
Packing peanuts make a lightweight, cheap, and fun building material. You can take these small units and stick them together by getting them damp. You can also alter their shape by rolling, squeezing, cutting, and otherwise altering them. What kind of forms can you build with them? Can you make animals? Recognizable figures? Geometric designs? Can you create an object that is equally well-viewed from all sides?

+ www.housingaforest.com/packing-peanut-play/
+ http://kidsactivitiesblog.com/11090/upcycled-craft
METHOD FOUR: ASSEMBLY AND COLLECTION

#8 CREATING ENVIRONMENTAL ART
Your group can work with the materials that present themselves in your immediate surroundings—simple adjustments or transformations to make surprising structures in and out of nature.

Be sure to photograph the process and final products.

+ www.youtube.com/watch?v=vWcebVXNrDw

#9 MAKING ASSEMBLAGE AND READYMADE
In the early 1900s, some artists began using a technique they called assemblage to describe a sculptural process where they combined found objects together to create paintings and sculptures.

+ www.tate.org.uk/art/art-terms/a/assemblage

Artist Marcel Duchamp used a similar technique to make his often humorous readymade artworks:

+ www.tate.org.uk/art/art-terms/r/readymade

To make an assemblage piece, you will need to go on a scavenger hunt to find objects that can be combined and repurposed. You may need ways to fasten objects together; glue, nails, or staples could work. If you need to disassemble your assemblages and return the components, then use pipe cleaners, wire, string, and similar removable fastenings.

Make sure to document all your completed work!
METHOD FIVE: CASTING

#10 USING PLASTER OF PARIS

You can use plaster of Paris and cast in sand, Play-do®, or other soft, moldable material. For some ideas on how to make your own plaster casts:


#11 MAKING CANDY IN SILICONE OR PLASTIC MOLDS

You can make chocolates or other candy in silicone molds—either purchased molds, or those you make yourself. This is a tasty way to experiment with casting as a technique and to see how much you can customize each edition that you make, or to attempt and make them as similar to each other as possible.

+ [https://candylandcrafts.com/chocolatecandymolding.htm](https://candylandcrafts.com/chocolatecandymolding.htm)
+ [https://smooth-on.com/applications/food-applications/](https://smooth-on.com/applications/food-applications/)

TAKE A CLOSER LOOK!

To extend the sculpture unit, you can choose to work further in a sculptural style of your choice from the earlier activities. Do some research and planning ahead of time to solve any issues or improve your outcomes. Your group could also plan a field trip to visit a museum, public artwork installation, sculpture garden, historical society, or other location where you can see and learn about sculptures in your community. Or, you could visit a sculpture, fabrication, or design studio where people are creating sculptural work.
This topic aims to introduce the boys to sculpture as a process and as creative expression. It is an opportunity for boys to explore their more artistic side, and to give those with natural artistic talent an opportunity to shine!

- **Differentiation point:** Sculpture is an incredibly diverse art form. All cultures have famous sculptures and sculptors. Encourage boys to share well-known three-dimensional art forms from cultures they know or of which they are part!

- **Differentiation point:** Many boys will benefit from pictures or sculpting techniques. We include links so that boys may find demonstrations. You may also find it useful to cut out pictures or bring in samples of different kind of sculpting if you can locate them.

- **Differentiation point:** Some boys may learn best by watching, while others learn better by listening; still others learn best by doing. This topic is wonderful to engage all different types of learners. Be sure to both show and tell boys how to proceed as they work, and allow them to try a task several times if they wish!

- **Differentiation point:** Some boys will be more artistic than others; some will work more quickly than others. Allow the boys to use each other as resources and help each other with their printmaking projects!

- **Differentiation point:** If you or a boy knows someone who sculpts either professionally or as a hobby, you may consider having him or her visit the group to talk about techniques, and perhaps even demonstrate or give a lesson.

- **Differentiation point:** You might consider facilitating a trip to view a sculpture exhibit at a local museum. A docent may even lead the boys on a tour. If you plan a trip, be sure to follow proper protocol for permission and transportation to and from the field trip site.

The Group Task will examine the different methods of sculpture as outlined in Zooming In. The individual tasks give the boys many opportunities to engage in hands-on experience with different methods of sculpting. The Closing Task will look at Michelangelo’s famous Pietà.

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### RESOURCES

**Sculpture**

- [vegetablefruitcarving.com/blog/fruit-carving-for-beginners/](vegetablefruitcarving.com/blog/fruit-carving-for-beginners/)
- [www.youtube.com/channel/UC-C7YqQCVvJ-2EUuyH7IOStw](www.youtube.com/channel/UC-C7YqQCVvJ-2EUuyH7IOStw)
- [sunandseafestival.com/](sunandseafestival.com/)
- [www.popularmechanics.com/home/tools/reviews/a5975/sand-castle-building-tools/](www.popularmechanics.com/home/tools/reviews/a5975/sand-castle-building-tools/)
- [www.clay-it-now.com/besthomemadeclay.html](www.clay-it-now.com/besthomemadeclay.html)
- [origami-resource-center.com/](origami-resource-center.com/)
- [www.housingaforest.com/packing-peanut-play/](www.housingaforest.com/packing-peanut-play/)
- [kidsactivitiesblog.com/11090/upcycled-craft](kidsactivitiesblog.com/11090/upcycled-craft)
- [www.youtube.com/watch?v=vWcebVXNrDw](www.youtube.com/watch?v=vWcebVXNrDw)
- [www.homegrownfun.com/sand-castings-simple/](www.homegrownfun.com/sand-castings-simple/)
- [www.candylandcrafts.com/chocolatecandymolding.htm](www.candylandcrafts.com/chocolatecandymolding.htm)
- [smooth-on.com/applications/food-applications/](smooth-on.com/applications/food-applications/)
- [www.wikihow.com/Make-a-Soap-Carving](www.wikihow.com/Make-a-Soap-Carving)
- [www.italianrenaissance.org/michelangelos-pieta/](www.italianrenaissance.org/michelangelos-pieta/)
GUIDE’S RESOURCES

TOPIC GUIDE
Welcome the boys and read the topic together. This serves as a group task. Be sure to take your time and pause after each method explanation to ask the boys if they have questions.

INDIVIDUAL TASKS
To earn the emblem, the boys need to make sculptures using at least four different methods, for a minimum of four tasks. Of course, they are welcome do more if they wish! Have them document as they go along, and create either a slideshow or a physical exhibition of your work at the end of the unit.

▶ Differentiation point: Consider hosting an Art Show to celebrate the hard work of the boys as the emblem concludes. Depending on your resources, you can invite caregivers or community members, and perhaps have refreshments and have boys create “booths” where they exhibit their work. Alternatively, you could have the boys display their work for each other to admire in a more informal setting.

METHOD ONE: SUBTRACTIVE SCULPTURE TASKS 1 AND 2
These tasks involve carving. These activities will require the use of some sharp tools, and the boys should be supervised. Have a first aid kit readily available.

▶ Differentiation point: Due to the use of sharp objects, consider having one or more assistants/volunteers to supervise, particularly if you have a large group.

1. Circulate and facilitate as they carve from either soap or fruits and vegetables!

▶ Differentiation point: If a boy has particular knowledge of soap or fruit/vegetable sculpting, allow him to take the lead and even teach other boys. This should take up to one session to complete.

2. At the end of the session, have the boys photograph the carvings from several angles. They may use mobile devices, or you or they could borrow or procure a camera.

3. After the carving is complete, at the end of the session or the beginning of the subsequent session, debrief with the boys. What was harder than they expected? What went well?

Some soap carving instructions:
www.wikihow.com/Make-a-Soap-Carving

There are also plenty of specific tutorials on making particular shapes from soap. Feel free to have the boys explore and chose a few of those to work with.

Some fruit/vegetable carving instructions:
www.vegetablefruitcarving.com/blog/fruit-carving-for-beginners/
www.youtube.com/channel/UC-C7YqQCvJ-2EUyH7iOStw
GUIDE’S RESOURCES

METHOD TWO: ADDITIVE SCULPTURE TASKS 3 AND 4

These tasks involve constructing sculptures through giving form to either sand or clay/Play-do®.

- **Differentiation point:** If you live near a shoreline with sand, you may wish to organize a trip to perform Task 3. Be sure to follow all protocol for field trips.
- **Differentiation point:** Task 3 may be done in small groups or individually.
- **Differentiation point:** If completing Task 4, encourage boys to give their sculptures as gifts to others!

1. Have boys read or view techniques. Encourage them to sketch their sculpture before creating it!
2. Facilitate as the boys create their sculpture. This could take up to a session to complete, depending on boys’ interests.
3. Have boys photograph their sculptures.
4. Debrief with the boys, asking them to reflect on how additive sculpture differs from subtractive sculpture.

Information on sandcastle building:

http://sunandseafestival.com/

http://popularmechanics.com/home/tools/reviews/a5975/sand-castle-building-tools/

Recipe for making homemade clay:

www.clay-it-now.com/besthomemadeclay.html

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METHOD THREE: FABRICATION TASKS 5, 6, AND 7

These tasks give boys hands-on experience with making representative forms from flat materials.

1. Gather materials for fabrication sculpture.

- **Differentiation point:** When choosing the material to work with, consider your resources. Do you or the boys have extra wire hangers in the home, or other kinds of wire, such as floral wire? Do you or someone at the Corps have easy access to packing peanuts, perhaps from a recent delivery? Do you know someone who practices origami as a hobby and would have materials and/or expertise to share? Consider both your material resources and possibilities to bring in artists!
2. Circulate and facilitate as necessary. Allow the boys to take the lead here. If they are enjoying working with materials, allow them to work as long as they like!
3. Have them document their work when it is complete.
4. Set some time aside at the end of session or a subsequent meeting to share their masterpieces with the group!
GUIDE’S RESOURCES

Resource for origami:
www.origami-resource-center.com/

Resources for making packing peanut structures:
www.housingaforest.com/packing-peanut-play/
http://kidsactivitiesblog.com/11090/upcycled-craft

MATERIALS
Varies, but be sure to include a way to attach items together

☐ If returning items to the environment, be sure to choose fasteners that do not compromise integrity of material (such as fasteners or pipe cleaners)

☐ Devices for viewing internet resources and/or printed texts

☐ Devices for photographing sculptures

METHOD FOUR: ASSEMBLAGE AND READYMADe TASKS 8 AND 9

This method involves making sculptures from found objects in the environment.

1. Gather materials.
   - **Differentiation point:** We recommend conducting a fun scavenger hunt in nature or around the meeting area to find materials for assemblage. Alternatively, you could have them scavenge for materials outside of meeting time (at school, for instance, or in their homes).
   - **Differentiation point:** If possible, view clips about this type of sculpture before embarking on it!

2. Circulate and facilitate as necessary. Allow the boys to take the lead here. If they are enjoying working with materials, allow them to work as long as they like!

3. Have them document their work when it is complete.

4. Set some time aside at the end of session or a subsequent meeting to share their masterpieces with the group!

Resource for creating environmental art
www.youtube.com/watch?v=vWcebVXNrDw

Resources for making Assemblage and Readymade
www.tate.org.uk/art/art-terms/a/assemblage
www.tate.org.uk/art/art-terms/r/readymade

METHOD FIVE: CASTING TASKS 10 AND 11

Casting involves pouring liquid into a mold in order to create a desired shape. The boys may create casts using plaster of Paris and/or attempt to make an edible sculpture through making candy molds.

**NOTE:** DO NOT POUR EXCESS WET PLASTER DOWN A SINK OR TOILET. IT CAN HARDEN AND CLOG YOUR PLUMBING!

1. Gather materials. If making candy, gather a few recipes for the candy of your choice.
   - **Differentiation point:** If possible, view clips or read about casting/candy molding before embarking on it!

2. Circulate and facilitate as necessary. Allow the boys to take the lead here. If they are enjoying working with materials, allow them to work as long as they like!
GUIDE’S RESOURCES

- **Differentiation point:** If making candy, the boys will need a heat source. Exercise caution and make sure there are enough adults to supervise the boys.

3. Have them document their work when it is complete.
4. Set some time aside at the end of session or a subsequent meeting to share their masterpieces with the group, and perhaps even eat them!

CLOSING TASK: MICHELANGELO’S PIETÀ

One of the most famous sculptures in human history was created around 1500. It depicts Mary holding Jesus after He was taken down from the cross and is located in Vatican City today. Take a moment to look at the image together. What kinds of emotions does it evoke? Why has this sculpture and the story it tells become one of the most well-known pieces of art? What kind of effect does it have on you as a Christian?

MATERIALS (continued)

- Sand
- Surface for laying wet casts